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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,562	10/24/2003	Lelia Cosimbescu	87196AEK	9164

7590 04/01/2005

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EXAMINER

GARRETT, DAWN L

ART UNIT PAPER NUMBER

1774

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/692,562

Applicant(s)

COSIMBESCU ET AL.

Examiner

Dawn Garrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 and 19-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 19-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office action is responsive to the amendment dated January 10, 2005. Claims 1, 8, 9, 11, 12, 14, 19, and 20 were amended. Claim 18 was cancelled. Claims 1-17 and 19-27 are pending.
2. The Declaration under Rule 131 dated January 10, 2005 is acknowledged.
3. The objections to claims 9, 11, and 14 are withdrawn due to the amendment.
4. The rejection of claims 8 and 18 under 35 USC 112, second paragraph, set forth in the last Office action (mailed August 10, 2004) are withdrawn due to the amendment of claim 8 and the cancellation of claim 18.
5. The rejection of claims 1, 3, 7, 9, 13-15, 18, 20, 22, 24, and 25 under 35 USC 102(e) as being anticipated by Fukuoka et al. (US 6,713,192) is withdrawn upon further consideration of applicant's arguments.
6. The rejection of claims 10-12, 16, and 17 under 35 USC 103(a) as being unpatentable over Fukuoka et al. (US 6,713,192) is withdrawn.
7. The rejection of claim 23 under 35 USC 103(a) as being unpatentable over Fukuoka et al. (US 6,713,192) in view of Araki (US 6,413,658) is withdrawn.
8. The rejection of claims 1-19, 26, and 27 under 35 USC 103(a) as being unpatentable over Funahashi et al. (WO 2003/087023) is withdrawn due to the declaration signed January 10, 2005 by Lelia Cosimbescu.
9. The rejection of claim 21 under 35 USC 103(a) as being unpatentable over Funahashi et al. (WO 2003/087023) in view of Wolk et al. (US 2002/0160296) is withdrawn.

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10. It is suggested the status of co-pending applications be updated in the specification by amendment.

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claims 1-17 and 19-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. (US 5,281,489) in view of Shi et al. (EP 1009044 A2). Mori et al. teaches an electroluminescent element comprising a mixture of a fluorescent luminescent agent, at least one hole moving and donating agent (hole transporting agent) and at least one electron moving and donating agent (see abstract). Mori et al. teaches anthracene compounds may be used as the hole moving and donating agent, but fails to teach the specific anthracene derivative of formula (I) (see col. 4, lines 40-41). Shi et al. teaches in analogous art hole transporting anthracene derivatives (see abstract). Formula (I) shown on page 3, R3 or R4 may be independently an aryl group of up to 20 carbons (see page 3, lines 14-29), which includes phenyl groups and bi-phenyl groups. In a formula such as VII shown on page 5, the fused rings attached to the anthracene skeleton may further have a phenyl group for R3 per instant claim 3. The teaching of the R3 and R4 groups encompasses the limitations of claims 2-17. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used the Shi et al. compounds in the Mori et al. light emitting layer, because Mori et al. teaches a hole transporting material such as an anthracene derivative should be used in the mixed light emitting layer. Mori et al. further teaches many fluorescent materials for the fluorescent luminescent agent, which includes blue emitting compounds such as perylene and green emitting compounds such as coumarins (see col. 23, line 48 to col. 24, line 48) per instant claims 19 and 20. The electron transporting component

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of the Mori et al. light emitting layer reads upon the co-host of claim 22. The electron transporting material may be a polymer per instant claim 23 (see col. 13, line 26 to col. 14, line 5). The electron transporting material may also include metal complexes of 8-hydroxyquinolines per instant claim 25 (see col. 8, lines 15-30). Mori et al. fails to teach the electroluminescent element specifically produces white light; however, Shi et al. teaches it is known the color of the EL device can be tuned by using fluorescent dyes of different emission wavelengths (see par. 32). It would have been obvious to one of ordinary skill in the art to have selected the fluorescent dyes of the Mori et al. device to emit white light if desired, because Shi et al. teach in analogous art that a combination of dyes of different emission wavelengths will produce a desired color.

#### ***Response to Arguments***

13. Applicant's arguments with respect to claims 1-17 and 19-27 have been considered but are moot in view of the new ground(s) of rejection.


#### ***Conclusion***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571)272-1523. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached at (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Dawn Garrett  
Primary Examiner  
Art Unit 1774

D.G.  
March 28, 2005